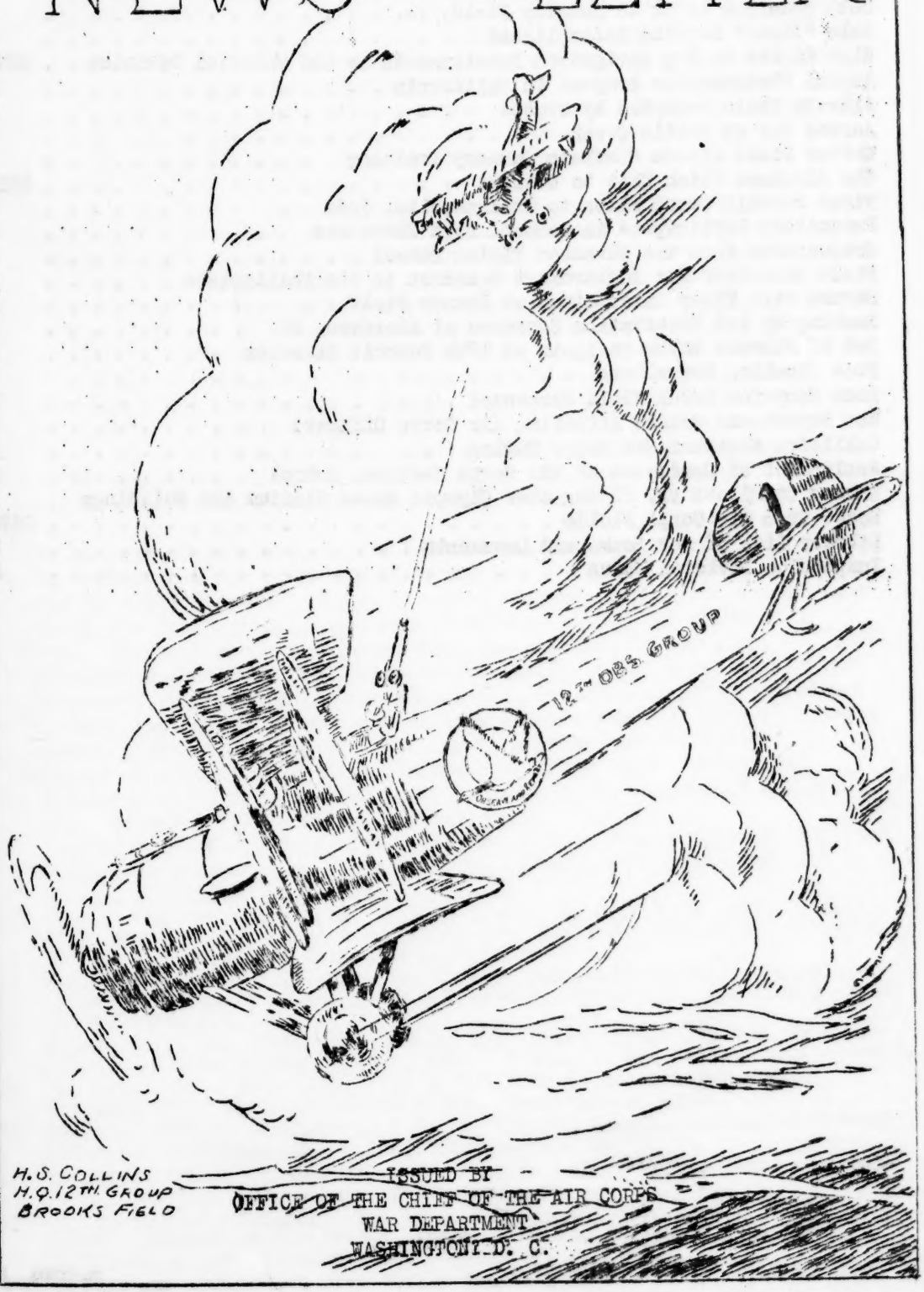
JUN 27 1932

AIR CORPS NEWS LETTER



H.S. COLLINS
H.Q. 12TH GROUP
BROOKS FIELD

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WAR DEPARTMENT
WASHINGTON, D. C.

VOL. XVI JUNE 22, 1932 NO. 7

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VOL. XVI AIR CORPS NEWS NO. 7

Information Division, Air Corps — June 22, 1932. — Munitions Building, Washington, D.C.

The chief purpose of this publication is to distribute information on aeronautics to the flying personnel in the Regular Army, Reserve Corps, National Guard, and others connected with aviation.

Publishers are authorized to reprint material appearing in this publication.

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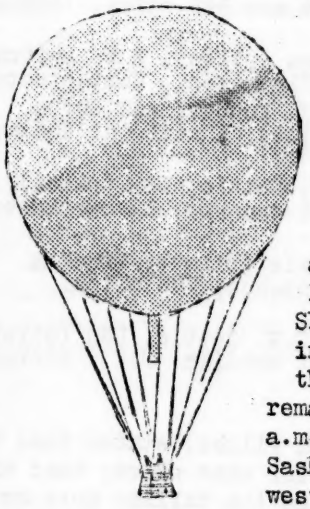
AIR CORPS TEAM WINS NATIONAL ELIMINATION BALLOON RACE



The victory of 1st Lieut. Wilfred J. Paul (pilot) and Master Sergeant John Bishop (aide), who piloted Army Balloon No. 2 in the National Elimination Balloon Race, which started from Omaha, Nebraska, on May 30th last, marks the fifth time in the history of this annual free balloon classic for the Litchfield Trophy that an Army entry carried off first honors.

The Air Corps team of Captain William J. Flood (pilot) and 1st Lieut. Haynie McCormick, aide, piloting Army Balloon No. 1, finished in third place, landing at Sherwood, N.D., a distance of 605 miles from the starting point. Lieut. Paul and Sgt. Bishop, the latter, by the way, being a Lieutenant in the Air Corps Reserve, remained aloft 26 hours and 46 minutes, landing at 1:00 a.m., June 1st, at a point 13 miles north of Hatton, Saskatchewan, Canada, approximately 901 miles north and west of Omaha.

Second place went to the Goodyear Tire and Rubber Co. entry of Roland Blair, pilot, and Frank Trotter aide, who finished their long aerial jaunt near Tyvan, Saskatchewan, Canada, a distance of 700 miles from Omaha.

The history of this annual free balloon race, dating back to the year 1909, is marked thus far by 22 annual contests. There was no race in 1917 and 1918, due to the World War. The distinction of covering the longest distance thus far in the National Elimination Balloon Race belongs to Mr. Ward T. Van Orman. In the race which started from San Antonio, Texas, April 23, 1924, he traversed a distance of 1072 miles before landing. Van Orman also holds another record, that of winning the competition for four consecutive years - 1924 to 1927, inclusive. Three-time winners are Messrs. H.E. Honeywell and R.H. Upson. Lieut. T.W.G. Settle, U.S. Navy, achieved two victories.

Winners of the National Balloon Races are listed below, as follows:

1909 Indianapolis, Ind., June 5th. Won by John Barry, landing at Ft. Payne, Ala. Distance 377.92 miles. Contestants 6.

1910 Indianapolis, Ind., Sept. 17th. Won by Alan R. Hawley (pilot), Augustus Post, (aide) landing at Warrenton, Va. Distance 453 miles. Duration, 44 hrs. 25 minutes, 30 seconds.

1911 Kansas City, Mo., July 10th. Won by Lieut. Frank P. Lahm (pilot), Lieut. J. F. Hart (aide), landing at LaPaz, Ind. Distance 480 miles. Duration, 22 hrs., 26 minutes. Contestants, 7.

1912 Kansas City, Mo., July 27th. Won by H.E. Honeywell (pilot), R.Donaldson (aide), landing at Manassas, Va. Distance, 914 miles. Duration,34 hrs. Contestants, 7.

1913 Kansas City, Mo., July 4th. Won by R.H. Upson (pilot), R.A.D. Preston (aide), landing at West Branch, Mich. Distance, 685 miles. Contestants,5.

1914 St. Louis, Mo., July 11th. Won by R.A.D. Preston, landing at Mt. Pleasant, Ky. Distance 301.82 miles. Contestants, 9.

1915 Wichita, Kansas, October 7th. Won by William Assman, landing at Prescott, Arkansas. Distance, 363 miles. Contestants, 4.

1916 Muskogee, Okla., October 7th. Won by H.E. Honeywell, landing at Cascade, Iowa. Distance, 520 miles. Contestants, 6.

1919 St. Louis, Mo., October. Won by R.H. Upson (pilot), Ward T. VanOrman (aide), landing at Stanbridge, Quebec, Canada. Distance, 1021 miles. Duration, 26 hrs. 45 minutes. Contestants, 9.

1920 Birmingham, Ala., September 25th. Won by H.E. Honeywell, (pilot), Dr. Jerome Kingsberry (aide), landing at Chatham, Ontario. Distance, 700 miles, Contestants, 12.

1921 Birmingham, Ala., May 23rd. Won by R.H. Upson (pilot), C.G. Andrus (aide), landing at Stuart, Va. Distance, 425 miles. Contestants, 9.

1922 Milwaukee, Wis., May 31st. Won by Major Oscar Westover, Air Corps, (pilot), Lieut. Carlton Bond, Air Corps (aide), landing at St. Jerome, Canada. Distance, 866.5 miles. Contestants, 12.

1923 Indianapolis, Ind., July 4th. Won by Lieut. R.S. Olmstead, Air Corps (pilot), Lieut. John W. Shoptaw, Air Corps (aide), landing at Marilla, N.Y. Distance, 449.5 miles. Contestants, 13.

1924 San Antonio, Texas, April 23rd. Won by Ward T. Van Orman (pilot), C.K. Wollam (aide), landing at Rochester, Minn., distance 1072 miles. Contestants, 7.

1925 St. Joseph, Mo., May 1st. Won by Ward T. Van Orman (pilot), C.K. Wollam (aide), landing at Reform, Ala. Distance, 585 miles. Contestants, 5.

1926 Little Rock, Ark., April 29th. Won by Ward T. Van Orman (pilot), W.W. Morton (aide), landing at Petersburg, Va. Distance 848 miles. Contestants, .

1927 Akron, Ohio, May 30th. Won by Ward T. Van Orman (pilot), W.W. Morton (aide), landing at Hancock, Maine. Distance, 718 miles. Contestants, 15.

1928 Pittsburgh, Pa., May 30th. Won by Captain W. E. Kepner, Air Corps, (pilot), Lieut. Wm. O. Eareckson, Air Corps (aide), landing at Weems, Va. Distance 261½ miles. Contestants, 14.

1929 Pittsburgh, Pa., May 4th. Won by Lieut. T.G.W. Settle, USN (pilot), Ensign Wilfred Bushnell, USN (aide), landing at Canavoy, Savage Harbor, Prince Edward Island. Distance, 952 miles.

1930 Houston, Texas, July 4th. Won by Roland J. Blair (pilot), Frank A. Trotter (aide), landing at Greensburg, Ky. Distance, 768 miles. Contestants, 15.

1931 Akron, Ohio, July 19th. Won by Lieut. Thomas G.W. Settle, USN (pilot), Lieut. Wilfred Bushnell, USN (aide), landing at Marilla, N.Y. Distance, 215 miles.

Captain Flood, relating the story of his balloon flight, stated that they took off from Omaha at 7:00 p.m., during a pretty stiff wind storm; that due to the heavy wind the grommets on the basket gave way and the balloon more or less broke away.

"We got away with considerable ballast, about 32 bags," he said, "and just as soon as we managed to get the balloon in equilibrium we checked our ground speed and figured we were making a speed of approximately 59 miles an hour at an altitude of about 2,000 feet. We oscillated up and down the entire evening and, due to the darkness and the approaching storms, we lost sight of the ground. As a matter of fact, we saw the ground but once after that until we landed the next day.

At about 11:00 p.m., the balloon struck some object, and upon glancing at the altimeter it was noticed that it registered a thousand feet. We concluded that the altimeter was not functioning correctly and that what we hit was probably one of those tall grain elevators lying along the western railroad tracks, because we only hit once and had we been in some hills we would probably have bumped several times. From this point we continued our flight at an altitude of between 3,000 and 4,000 feet until daybreak, which was at about three o'clock. We then caught a glimpse of the ground and checked our direction north. We had pretty fair ground speed. All during the night we traveled from one storm into another, these storms producing a considerable amount of electrical disturbances. At 4:00 o'clock, we decided to go higher, as we had planned to fly the race at a low altitude the first night and gain altitude the next day in order to take advantage of the prevailing westerly winds.

Upon reaching 15,000 feet, we checked our balloon and it oscillated between 13,000 and 17,000 feet until about 11:45 a.m., when storm areas started building up which caused the contraction of our gas and started us on a rapid descent. At this time we had five bags of ballast left, plus some other disposable ballast, and we endeavored to check the descent of the balloon, but our efforts were in vain and our rate of descent increased rather than diminished. We were losing altitude at the rate of approximately a thousand feet a minute, and when we reached the 7,000-ft. level we were in the midst of a heavy rain storm with the clouds reaching down to within about 200 feet of the ground. Our balloon hit the ground with terrific force, and on the first bounce we immediately endeavored to get rid of all the remaining disposable ballast. A fierce gale was blowing on the ground which carried us directly into a high tension line on the outskirts of Sherwood, North Dakota. The impact of the balloon broke the high tension line and threw us against some small trees, thus breaking our fall. Just prior to hitting the high tension line, we ripped the

balloon.

Aside from the severe jolt and the shaking up we received, neither Lieut. McCormick nor myself was injured, and we consider this balloon flight one of the most exciting within our memory."

In connection with the victory of Army Balloon No. 2 in the Balloon Race, the News Letter Correspondent from Scott Field submits the following:

"Master Sergeant Joseph H. Bishop, aide to Lieutenant Wilfred J. Paul in the Army balloon, unofficial winner of the 1932 National Balloon Race held last week, returned to Scott Field Saturday and again is on duty with the Ninth Airship Company. According to estimates given today, the Army bag was winner by approximately 200 miles over the Goodyear entry, but the official decision has not yet been released by the American Aeronautical Association which has jurisdiction over the race.

Taking time from his duties this morning, Sergeant Bishop told of some of the experiences of the trip. A complete log was kept of the trip and all technical details are given, but Bishop's interview today was confined to the most important highlights.

'Our bag was inflated during the late afternoon of May 30th,' Bishop said, 'while a gusty wind estimated at from 20 to 40 miles an hour was blowing. It required 200 men to hold the balloon in position but the work was completed without mishap and we were ready for our flight at 7:30 o'clock that night.

Leaving Omaha, the starting point of the race, we rode in front of a low pressure storm, but surrounded by rain and an electrical display. Early in the night we were drawn into the storm. The riding was smooth at an altitude of between 1200 and 2000 feet, in spite of the constant rain, and we found we were being carried in a general north and west direction by the prevailing wind.

Later in the night we tried to get out of the rain, and by dropping ballast, rose to a level of 12,000 feet but found there we were still under the clouds. During that time we passed through two distinct snow storms.

The following morning was free from electrical storms but the clouds still were heavy and during much of the day we were above one layer of clouds and below another layer of thin clouds. About 4 o'clock that afternoon, we let enough gas out of the bag to get within 300 feet of the ground to check our position and there found we were over Bengough, Saskatchewan, Canada.

Just about that time there was a rift in the clouds and the direct sun rays warmed the gas in the bag and sent us up to 6,000 feet height against our will. We wanted to stay nearer the ground in order to keep a check on our position. Resorting to the valve a second time, we were able to get back near the ground and maintained that level until we crossed Crane Lake, where the radiation from the water had the same effect as the sun's rays and again we took a sky jump.

By the time we descended again we found the wind had changed and that we were then being carried in an easterly direction. Rules of the race provide for the shortest air distance, measured on a great circle course, between the starting and stopping point, regardless of the miles traveled. Up to that time we had been going north and west, so a change to the east would have had the effect of shortening our distance from Omaha. We could not catch an air current going the way we wanted to go so we agreed to land as the only means of saving our mileage. The landing was made successfully at one o'clock Wednesday morning.'

When the landing was made, Lieut. Paul and Sergeant Bishop still had 200 pounds of ballast, enough to have enabled them to have flown 10 to 12 hours longer if they could have located favorable winds."

Lieut. Wilfred J. Paul, originally scheduled to act as aide to Lieut. R.R. Gillespie, and who took the role of pilot upon the withdrawal of the latter due to injuries received enroute to Omaha, submitted the following official report on the flight of Army Balloon No. 2:

" * * 2. Prior to time of take-off, the various positions were drawn. Captain Flood drew Post No. 4 and Lieut. Paul, No. 5.* The race was scheduled to take the air at 5:00 p.m., but due to adverse weather conditions the start was delayed until about 6:30 p.m. Several of the civilian entrants had difficulty with envelope leaks and waived their position of take-off. At the actual time of departure, Captain Flood took off second and Lieut. Paul third.

* Six balloons were entered in the race.

Much difficulty was encountered in securing an accurate weigh-off, as the balloons wavered back and forth in a 25-mile wind. Serious difficulty was avoided due to skillful maneuvering of Major W.E. Kepner, who has National and International prizes to his credit.

3. U.S. Army Balloon No. 2 took off at approximately 7:00 p.m., 30 May, 1932. The static condition of the balloon was not accurately known, with the result that we drifted along the ground at an altitude of about 50 feet. Upon the discharge of ballast, we rose to an altitude of approximately 2,000 feet. At this time the cloud formations were thick cumulous, with a base at about 3,000 feet. This altitude was maintained until darkness set in. At about ten o'clock we noticed directly to the north of us and in our path several electrical disturbances. We rose to an altitude of 3,000 feet and received a pronounced cooling effect, due to the moisture of the clouds. We then descended and at midnight distinct thunderbolts were heard and we felt ourselves being drawn closer to the lightning displays. The flashes of lightning gave the clouds a silvery brilliance; the path of lightning was not only between the clouds and the ground, but also between two separate clouds. Early the following morning we estimated this disturbance at a distance of about one-half mile. We settled to an altitude of approximately 500 feet and skirted this dangerous condition. Up to this time we had been drifting due north, but upon taking a compass bearing we found our direction of drift had changed to northwest and that the electrical disturbance had subsided, which was a great relief, indeed.

As the sun rose the second morning, the balloon ascended to about 7,000 feet, finally drifting us between two layers of clouds; the one above having the aspect of a cumulo-nimbus formation. At about 9:00 o'clock the second morning it began to rain and it was necessary to dispose of several hundred pounds of ballast in order to counteract the moisture absorbed by the envelope. We carried on under such conditions for the better part of the day. The balloon rode smoothly and there was no indication of further electrical fireworks, much to our satisfaction.

In the early afternoon of the second day the clouds below began to dissipate and we could occasionally see the ground. We took a compass bearing and found we were still drifting in a northwesterly direction. The monotony of the trip began to tell on us - it reminded one of drifting over the barren snows of the Arctic region. Bishop and I attempted to eat a little food at this time, but the night before had rather unnerved us and our appetites had failed.

We finally ascended to our maximum altitude of about 10,000 feet. After staying at this height for several hours, we became drowsy and it was necessary to use some of our oxygen. It is interesting to note that at this altitude our eyelids became heavy and that this condition was counteracted by inhaling a small quantity of oxygen. Here we were drawn into a large thunder head in which snow began to fall. The weight of the snow on the envelope caused us to descend; at an altitude of about 7,000 feet the snow dissipated to rain and upon further descent the rain condensed and we were again in clear weather.

The clouds at this point became broken and scattered and we had our first vision of direct sunshine. We noticed below us a grain elevator and attempted to locate our position from it. We were unable to read the sign on the elevator, however, even with the aid of powerful binoculars. At this time our position had again changed and we were drifting in a due westerly direction.

The direct rays of the sun super-heated our gas at this point sufficiently to bring us again to an altitude of about 8,000 feet. We rode at this altitude for the next three hours. The cooling condition of the evening caused our gas to contract and we again descended to an altitude of about 500 feet. We finally passed a small town, and upon inquiry from the inhabitants found we were in Saskatchewan, Canada. The name of the town was given us, but we were unable to locate it on the map.

In our westerly course we traversed a highway. Several automobiles rode beneath us, and upon inquiry we found ourselves in Gull Lake, Saskatchewan, Canada. The clouds were still broken and scattered and varied from the cumulous to the cirrus type. Just before night overtook us, we again discovered a storm area in our path and looked forward uneasily to a repetition of the preceding night. We remained at a rather low altitude in case of further lightning disturbances. At about midnight of the second night we again ran into a rain storm. At this point we took a bearing and found that our course had changed to a northerly direction. The rain continued to fall in torrents; we

approached the ground, took a final bearing and noted that our course had changed to a northeasterly direction. We discussed this change and agreed that we were retracing our course, much to our disappointment, and decided to land.

4. Due to the blackness of the night and the rainy condition we were unable to locate the ground in landing. The barometer had dropped, which affected our altimeter. At zero on our altimeter we found we were still in the air and at minus 150 feet on our altimeter. We hit the ground and ripped the envelope, thereby releasing our hydrogen, or lifting element. The landing occurred at 1:00 a.m., June 1, 1932.

5. We were rather disappointed in being forced to land due to this change of wind direction, as we had 300 pounds of ballast left and also two oxygen tanks, which we could have disposed of in an emergency. We were unable to tell exactly where we were; we could see no signs of life in the near vicinity, so we decided to improvise a shelter. We had been in the air about 30 hours and had had no sleep during that time, nor any sleep for 12 hours prior to departure. We were very fatigued and were soon sound asleep, regardless of our soaked condition and of the downpour about us.

At sunup we awoke in a dazed and chilled condition. We found we had landed in prairie country and located with great satisfaction a homestead about a mile and a half away. The homestead belonged to Mr. Willing, who lived with his wife and grown son. A hearty breakfast was prepared for us, which we had no difficulty in devouring. We then proceeded to pack our equipment with the aid of the two ranchmen. This task was rather difficult, due to the muddy condition of the soil and also due to the soaked condition of the envelope and equipment. We inquired as to the nearest rail point and found that it was but three miles away. However, upon further inquiry, we found that the train schedule was a bit irregular; two trains made the spur trip each month; the next train was due in a week from the coming Saturday. We then decided to make the trip to the main line, a distance of abour 14 miles, to Hatton, Saskatchewan. We loaded the equipment on a prairie wagon drawn by two bronchos and finally, after three hours, arrived in the town mentioned above. It was during this journey that we really realized the importance of springs and shock absorbers.

Upon arrival at Hatton, which had been greatly boosted to us, we found there were neither hotel nor eating accommodations. We were especially interested in a good night's rest. Upon making the arrangements to ship our equipment back to the United States, one of the natives was kind enough to take us to the nearest hotel, which was a further distance of about 30 miles. We finally arrived at the town of Maple Creek. This town far surpassed in beauty and hospitality anything we had ever encountered. We here met the Canadian Customs official, who did everything in his power to assist us. We then made contact with the U.S. Consul at Regina, Saskatchewan, and arranged for the shipment of our equipment and our re-entry into the United States. We finally arranged to leave Maple Creek midnight on Thursday, 2 June, 1932, but were again disappointed, as this train had been delayed 15 hours due to the washout of a bridge farther west.

Later, upon our arrival in Winnipeg, we inquired of the Canadian Airways their schedule and rates. Much to our surprise, the manager offered us the courtesy of the airline and, incidentally, a pass to their terminal point. The attitude of the Canadian officials and civilians was indeed gratifying; they went out of their way to offer us the utmost in courtesy and hospitality.

6. The most exciting part of the air trip was the first night, which was indeed long and uncertain. At the end of about 20 hours it became very monotonous. Were it not for Bishop's excellent sense of humor we might have felt inclined to set the balloon down. Finally, upon landing, we were unaware that we had won the race. We felt that we had done well; at least, we had done our best, which in itself is satisfying.

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Featuring the programs of Station KFXM, San Bernardino, Calif., is the broadcast on alternate Tuesday evenings by the First Bombardment Wing Band from March Field, Calif. On each program, an officer of the field delivers a fifteen-minute address on an Air Corps subject. The speaker for May 17th was Major J.T. McNarney, Commanding Officer of the 7th Bombardment Group, his subject being "Mission and General Organization of the Air Corps." On May 31st, Lieut.-Colonel Henry H. Arnold, Commanding Officer of March Field, spoke on "Development of Aviation and Procurement of Aircraft."

MAPPING SURVEY OF LOUISIANA COMPLETED

WITH the return of Lieut. Herman F. Woolard, Air Corps, to Scott Field after a three months' tour of duty in Louisiana, another chapter was written in the progressive mapping project by the United States Geological Survey of the Department of the Interior. This one was written with the active cooperation of the Army, inasmuch as various photo sections of the Air Corps were used to make the preliminary mapping surveys on which the subsequent work of the U.S.G.S. depended.

The combination of Air Corps and Geological Survey work brings results which make rapid and accurate work possible, the aerial mapping being surprisingly accurate as to railroads, land lines, rivers and roads. The work of Lt. Woolard was done with the help of maps, some of which were of 1850 vintage. Other maps he used actually failed to give the location of towns, or had them placed ten to fifteen miles off their true location.

The area covered by the 5th Photo Section totaled over 9,000 square miles. Cloudy weather limited Lieut. Woolard to only 15 flying days, during which he mapped some 600 square miles daily. There were a total of 3,000 exposures made, with the surprisingly few "retakes" of only three exposures, these being caused by shutter failures.

Lieut. Woolard based his mapping operations at three points. The first was in the vicinity of New Orleans, where he completed 2,200 square miles on March 20th. The second base was at Patterson, La., where the required 3,800 square miles were completed on May 3rd. The area covered from this base, which extends from the South Central part of the State along the Gulf coast to the Texas line, is a flat, marshy country known as the "Weeping Prairie." It is accessible in many parts by boat or horse only, since roads are not hard enough to support wagons or automobiles. The sparse population of this area are the "Cajuns" - Acadians - who speak a French dialect. The third base was at Shreveport, where 2,000 square miles were completed on May 17th. An area of about 1,000 square miles at Alexandria was covered from the third base.

All negatives from the three bases were shipped by express to Scott Field for development and printing, and prints sent to the U.S. Geological Survey in Washington.

Lieut. Woolard had the assistance of Master Sergeant Wilbur R. Rhodes and Corporal Paul M. Langlands at his bases. He used the Special Photographic Fairchild F1A plane, and took all pictures with the Fairchild T2-A, 4 lens camera. In making his exposures, he kept within the tolerance limit of 1% in altitude, 1% in tilt and $\frac{1}{4}$ of 1% in direction.

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CHANGES IN AIR CORPS STATIONS

The following changes in Air Corps units will be made during the month of June, 1932:

The 36th Pursuit Squadron will be moved from Selfridge Field, Mich., to Langley Field, Va., not later than June 15th, a total of 5 officers and 100 enlisted men.

The 58th Service Sqdn. will be moved from Brooks Field, Texas, to Langley Field, not later than June 15th, a total of 3 officers and 130 enlisted men.

The 8th Pursuit Group will be completed during the month of June at Langley Field, Va., to include:

Headquarters (now active at Langley Field)
33rd Pursuit Squadron (now inactive)
35th Pursuit Squadron (now inactive)
36th Pursuit Squadron (from Selfridge Field)
58th Service Squadron (from Brooks Field)

The 1st Bombardment Brigade Hqrs. and the 28th Communications Section (both now inactive), will be organized at Langley Field during June.

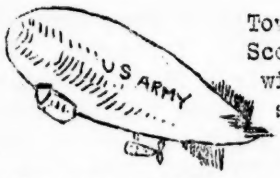
The 3rd Attack Wing Headquarters will be made active at Fort Crockett, Texas, on June 15th.

Eleven officers and 88 enlisted men will be moved from March Field, Calif. to Rockwell Field, Calif., not later than June 25th.

The 19th Bombardment Group Hqrs., 30th and 32nd Bombardment Squadrons will be made active at Rockwell Field, Calif., not later than June 25th.

The above changes are in accordance with the Air Corps 5-Year Program.

NEW DIRIGIBLE FOR SCOTT FIELD



Towns and cities within several hundred miles radius of Scott Field, Belleville, Ill., will shortly be greeted with a sister ship of the dirigible TC-6, now a familiar sight in the skies. The new craft, a similar type of "blimp" to be known as TC 10-253, was erected by the Engineering Department of Scott Field Air Depot, under the direction of Captain Roger S. McCullough, and should undergo its maiden flight during the first week in June. It will be used principally for experimental and test purposes, particularly in connection with perfection of instruments and improvement of methods of operation of this type of ship.

The new ship has a capacity of 210,000 cubic feet of helium, with a useful load of 5,750 pounds. Its maximum speed is 65 miles per hour and cruising speed 55 miles per hour. At the latter speed it will be capable of sustained flight of 33 hours without refueling. Its rate of climb is 1400 feet per minute, and its "ballonet" ceiling is 8,000 feet. The normal crew of this ship will be two pilots, one radio operator and one mechanic.

The TC-10 has an overall height of 58 feet, is 196 feet long, and carries a car which is 40 feet in length. It is powered by two Wright J5B engines with two-bladed propellers. The bag was manufactured by the Air Industries, Inc., at Hammondsport, N.Y., and the car by the Air Corps at Wright Field.

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RETIREMENT OF MASTER SERGEANT MELONEY

Master Sergeant Charles S. Meloney, Post Sergeant Major, Kelly Field, Tex., was placed on the retired list May 25th, and sent to his home in Pennsylvania. Master Sergeant Meloney's service dates from January 14, 1904, in Troop "D," 6th Cavalry, and he has since served with the Ordnance Department, the 5th Cavalry, the 3rd Attack Group, 43rd School Squadron, 24th School Wing Headquarters, Air Corps, and the Headquarters, Air Corps Advanced Flying School, the last organization to which he belonged. He was a noncommissioned officer since 1905. All of his nine discharges carry an "Excellent" character and bring out the fact that he was held in high esteem by all of his superiors. His loyalty and attention to duty throughout his service, together with his excellent record are commendable and are an inspiration and example to all.

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LONG TRIP BY LIEUT.-COLONEL ARNOLD

Lieut.-Colonel Henry H. Arnold, Air Corps, Commanding Officer of March Field, Riverside, Calif., recently completed a trip involving more than 5,000 miles by air and rail within the space of ten days. He departed from March Field on May 15th for the Boeing plant at Seattle, Washington, for the purpose of securing and ferrying a P-12F airplane to Wright Field, Dayton, Ohio. He departed from the Boeing plant May 17th and arrived at March Field the following day. On the 20th he flew to Rockwell Field, where a final check of the airplane was made, and from that point proceeded to Dayton, where he made delivery of the airplane to the Materiel Division. He returned to March Field in another P-12F.

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INSPECTION TRIP OF COMMUNICATIONS OFFICERS

During the period May 31st to June 8th, several officers of the present Communications Class, accompanied by members of the Staff of the Communications Department of the Air Corps Technical School, Chanute Field, Rantoul, Ill., under the command of Captain A.W. Marriner, Director of Communications, were on an inspection visit to plants and laboratories of manufacturers of radio and electrical equipment. The places visited were Wright Field, Ohio; Schenectady and Mitchel Field, N.Y.; Boonton, N.J., and Bolling Field, D.C. The faculty members, students and instructors participating in the trip were Captain A.W. Marriner, 1st Lieut. M.N. Stewart, 2nd Lieuts. R.L. Schoenlein, L.D. Fator, A.W. Shepherd, D.C. Doubleday, R.I. Dugan, R.E. Holmes, L.C. Westley, D.B.White, Technical Sergeant A.L. Revert and Mr. C.W. Richard, Chief Instructor.

FIELD MANEUVERS OF THE 91st OBSERVATION SQUADRON

Field maneuvers of the 91st Observation Squadron, Air Corps, were held at Camp Rodeo, Salinas, Calif., from May 5 to May 19th, 1932, inclusive. On the morning of May 5th, the main body truck convoy left Crissy Field promptly at 6:00 a.m., and started the long trek toward Salinas. Eleven trucks, several passenger cars and one motorcycle made up the convoy which was led by Lieut. A.L. Smith. The truck convoy made good time despite the fact that minor troubles necessitated several brief stops. However, after ten and one-half hours, the convoy rolled into camp at the Salinas Rodeo grounds where it was met by Lieut. Paul C. Wilkins, who had left with an advance convoy one week earlier, and now had all in readiness for the arrival of the main body. Tents were all pitched in neat rows and hot chow awaited the men.

The balance of the personnel fortunate enough to escape riding in the truck convoy either drove down in passenger cars or flew in the four O-25C airplanes which, at the time, were the only ships available for the maneuvers, save for the C-14 Transport and the F-1 Photo ship which were also at hand ready to do battle at the call of the General.

Camp Rodeo was very well suited to the needs of the Squadron, being located only two or three hundred yards from the Salinas Airport which served as the airdrome for the Squadron throughout the maneuvers. The officers' tents were pitched on the north end of the area adjacent to the stadium, while the south end housed the enlisted men. Midway between the two, the mess hall was built. The squadron barber opened his tent flap and prepared for two weeks' business, and an improvised Post Exchange was set up and operated by the Salinas Chapter of the American Legion. Camp Rodeo was all set for the war.

The airdrome was next put in readiness, the entire east end of the field was available for use by the Squadron and was organized as follows: The ships were lined up on the south side of the field, while on the north side the radio station was set up, the operations tent pegged down, the Commanding Officer's headquarters established, and the various other departments, such as engineering, supply, etc., were placed in readiness. Because of the lack of airplanes, the Squadron was greatly handicapped, and it would have been next to impossible to carry out attack missions had it not been for four Pursuit airplanes from March Field, led by Lieut. P.K. Morrill who, with his flight, joined the Squadron on May 8th and stayed with it for several days.

The commissioned personnel of the Camp consisted of Major M.F. Davis, Commanding; Major I.B. March, Flight Surgeon; Captain J.E. Upston, Operations Officer; 1st Lieut. P.C. Wilkins, Supply Officer; 2nd Lieuts. A.L. Smith, Communications Officer; R.B. Robbins, Intelligence Officer; G.G. Northrup, Photographic Officer; J.W. Towler, Engineering Officer; William Ball, Adjutant, and R.W. Merrick, Transportation Officer.

Pilots and observers exclusive of the above list were 2nd Lieuts. J.K. Poole, A.F. Wilkinson, Laddie Miller, Wistar Rosenburgh, J.J. Davis, P.B.Foote, and D.H. Pierce. In addition to the officers regularly assigned to the Squadron, we were fortunate in having Captain W.R. Maris, 6th Coast Artillery; 1st Lieut. D.P. Frissell, 30th Infantry, and four Pursuit pilots from March Field, namely, Lieuts. P.K. Morrill, M.F. Stalder, Anthony Curcio and James McClesky, attached for maneuvers.

On the afternoon of May 8th, a meeting was held at the Heating Plant on Gigling Reservation, at which time General McCleave outlined to the officers of the Air Corps, Infantry, Cavalry and Field Artillery, the plan and scope of the contemplated exercises. The officers of the Squadron had made flights in the morning over the reservation for the purpose of familiarizing themselves with the terrain and locating prominent land features for use later in the exercises.

On Monday, May 9th, the organization became a part of the First Instruction Group and participated in the group maneuvers. Four airplanes were assigned to the Red Forces, and four airplanes were assigned to the Blue Forces. Each force had two observation planes and two Pursuit planes for use in Attack missions. The Blue Force consisted of the 30th Infantry, with one battalion of the 76th Field Artillery attached. With the 11th Cavalry being the Red Force, the exercise was "Attack in a Meeting Engagement," illustrating the principles of the "Service of Security." Observation and Attack planes maintained constant contact with their respective forces, flying a total of 14 hours and 50 minutes during the day.

The flying missions the first day of the exercises consisted of Infantry

liaison and contact, photography and reconnaissance. In addition to several attack missions, messages were dropped from Observation airplanes and messages picked up at the command posts by the observers. In all, the first day's operations were very successful and served to acquaint the pilots and observers with the various things expected of them in their cooperative work.

The exercise on the morning of Tuesday, May 10th, was "Deployed and Position Defense," with the Blue Forces organizing an area for defense from the Red attacking forces. The aerial observation was somewhat handicapped because of low fog, but at 9:00 a.m., the ships took to the air and from that time on, throughout the day, operations were uninterrupted.

On Wednesday, May 11th, the problem was "Pursuit and Rear Guard Action." Because of the difficulty encountered by the ground troops in recognizing their friendly airplanes, it was necessary to have but one ship operating at a time. Thus, a Blue observation ship would work with its troops for a period of twenty minutes and then withdraw across the Salinas River and out of the war zone, allowing the Red airplane to work for a twenty-minute period. This system undoubtedly was the only solution of the problem, and was probably a great help to the ground forces, but it was a disadvantage to the pilot and observer who found it necessary to check in and out of their ground command post every 20 minutes, thus leaving too small a time for actual observation work. However, a ship, after withdrawing from the war zone, could communicate by radio telegraph and radio telephone with the command post or the home airdrome for instructions and thus be ready to observe as soon as the twenty-minute period arrived.

Each day the Fairchild Photo ship would come over the battle area to photograph the troops on the ground. It also carried umpires over the area on these photo reconnaissance flights. At the close of operations on May 12th, the command post of the Blue forces was moved to the Pumping Station on Gigling Reservation as the Blue forces were retreating rapidly but in an orderly manner. The Red forces were close behind and pursuing the retreating force.

As there were no exercises the following day other than night operations to be held at Gigling, the Squadron had a breathing spell. Necessary weekly inspections were accomplished and the airplanes again placed in readiness for flight. The balance of the day was spent in formation flights, radio interplane communications and blind flying. The following day, May 13th, one Observation airplane was sent to Gigling Reservation to observe artillery fire. Three other Observation planes were sent to the artillery range to fly a loose formation and witness the firing from aloft.

On May 14th, the Camp was visited by Brigadier-General Robert McCleave, Commanding General of the Sixth Brigade. Flying missions were carried on as usual and consisted of local flights, blind flying, interplane radio telephone communication and photography.

Major-General Malin Craig, Commanding General of the 9th Corps Area, inspected Camp Rodeo and the 91st Airdrome on May 16th, and witnessed the usual flying missions performed on that day. The four Pursuit airplanes which had aided the Squadron during the exercises departed for their home station, March Field. Blind flying and formation flights were participated in by the officers of the 91st Observation Squadron.

The following day, May 17th, the Squadron worked individually with the 30th Infantry and the 76th Field Artillery. One airplane was dispatched to carry on a liaison mission with the Infantry while one ship adjusted fire for the 76th Field Artillery. In addition to the above missions, an attack mission was carried out against the Cavalry. Photography and blind flying were also engaged in on that date. The missions of May 18th were practically a duplication of those on the preceding day. Infantry contact and liaison, artillery adjustment, together with photography, blind flying and formation training constituted the operations of the day. Following the close of flying operations, the airdrome was closed and tents and equipment were packed in preparation for the return trip to Crissy Field.

Early on the morning of May 19th, the Camp was dismantled and packed on the trucks preparatory for the departure for Crissy Field. By 7:00 a.m., the trucks were loaded and the convoy left Salinas, arriving at Crissy Field at 4:00 p.m. The airplanes departed from Salinas airport at 9:45 a.m., and arrived at Crissy Field one hour later. Two officers and ten men were left at Camp Rodeo as a clean-up detail. Equipment drawn from Presidio of Monterey was returned and the camp closed for another year. The rear echelon arrived at Crissy Field on May 20th.

The two weeks' field exercises at Salinas were of great value to all concerned. Officers of the Squadron had an unusual opportunity to work with the ground troops and to acquaint themselves with the problems of aerial observation in actual combat. All sections functioned exceptionally well and many valuable bits of experience were gained by all members of the Squadron. The 15th Photo Section showed great skill and efficiency in the speed and perfection of the work they turned out. Most important of all was the fact that after flying a total of 188 hours and 25 minutes, and successfully completing many types of Observation and Attack missions, there were no accidents to mar the records.

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TACTICAL INSPECTION OF BROOKS FIELD

The Corps Area Commander, Major-General Edwin B. Winans, conducted the first tactical inspection of Brooks Field, Texas, since it was placed under the jurisdiction of the 8th Corps Area. General Winans was accompanied by Major McLain and Captain Fortier of G-3 Division.

The inspection was begun with an aerial review in which every plane of the field participated, led by Major H.H. Young, Executive Officer. Following the review, a reconnaissance problem, the general situation of which had been handed the Squadron Commanders the previous day, occupied the program. This called for from the Squadron the reconnaissance of a certain area, with a limited time being placed upon the time available to cover the area. Troops of the Second Division were operating somewhere in the area to be covered by the reconnaissance, and operations were divided into three distinct phases, the first, from 8:30 to 9:30, consisting of one mission; the second from 9:30 to 10:30, consisting of movement through the assembly area, and the third, from 10:30 until 11:30, constituting the occupation of a defensive position. Each of the three Observation Squadrons received an independent mission during the period of one of these phases, and the accomplishment of the mission called for immediate radio communication on the discovery of troops, of the location, movements, etc., with aerial photographs of troop movement or concentration.

Radio communication was maintained by each Squadron with its own radio station, negative reports being made each fifteen minutes and positive reports immediately upon securing of information. The problem presented an actual situation that required of the pilot and observer team a practical demonstration of their ability in observation work.

Upon completion of these missions, detailed observation reports were made out and turned in to the Inspector. Following this phase of the inspection, the various Squadrons were called upon to demonstrate simulated artillery shoots, with puff targets, picking up and dropping messages, and a bombing demonstration.

At noon, a critique was held on the result of the handling of the various missions, and in the afternoon there was conducted an inspection of all flying equipment and of the entire post, including quarters, troops and training facilities, school equipment, supplies, maintenance and administration.

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36th SQUADRON TO GO TO LANGLEY FIELD, VA

In a few weeks Selfridge Field will seem an entirely different place. Not physically different, but different in atmosphere, caused by a large turnover in personnel which will soon take place here. The spirit and character of a community depends on the people in it, so with a whole squadron leaving permanently, and many officers going to other posts or being transferred here, Selfridge will be a new place.

The 36th Pursuit Squadron is being transferred to Langley Field. One hundred enlisted men go with the organization, and the following five officers: 1st Lt. Hodgson, 2nd Lts. Wilson, Hegy, Eckert and Mason. We regret to lose the 36th to another post, but know that at Langley it will add to its laurels and continue its reputation of being a "good outfit." One specific loss to Selfridge Field occasioned by the departure of the 36th is bewailed especially by the Post Athletic Officer. Athletics at Selfridge have always had the sterling support of the 36th, and the Post teams always have many from the 36th doing good work for the athletic reputation of the field. This is especially true of the baseball and football teams. Other changes in personnel include the transfer of 1st Lt. Paul W. Wolf and 2nd Lt. George F. Smith to Wright Field, where they will be students in the Air Corps Engineering School. A very important change will be the departure of Major Brower, Commanding Officer of the 1st Pursuit Group, with Major Gilkeson coming to take his place.

SOLO "BLIND" LANDING ACCOMPLISHED

SUPPLEMENTING the article in the last issue of the News Letter on Lieut. Hegenberger's "Blind" solo flight, the Materiel Division Correspondent sheds further light on this notable accomplishment in an article just received by the Information Division, and same is quoted below, as follows:

Monday, May 9th, proved for aviation a day of unique accomplishment, marking the first instance in history of a pilot alone in a plane accomplishing a take-off, flight, and landing completely "blind" - that is, by instrument alone, and in a hooded cockpit, with all sight of the earth and sky shut off. The pilot was Captain Albert F. Hegenberger; the plane was a standard service type known as the BT-2C, and the instruments used were the culmination of a series of developments carried on by the Materiel Division over a period of the past several years. With the cockpit completely covered on this occasion, Captain Hegenberger took off, flew away from the airdrome for ten miles, reaching an altitude of 2,000 feet, circled on a return course, found and came into the airdrome and made a perfect landing in the center of the flying field.

In 1929, it will be remembered, a similar demonstration was made by Lt. James Doolittle but with a safety pilot in the front cockpit, as the result of a series of experiments carried on under the auspices of the Guggenheim Foundation. The Guggenheim Foundation Report states "Although the results of these tests showed it is possible to land by instrument alone, the procedure is still in a highly experimental stage and it remains for some interested agency to continue the tests to a point where the process is practical."

The Materiel Division took up the project once more at this point, working always with a view to obtaining practical equipment. This "blind" solo flight is the result. Low cost and standard equipment are the outstanding advantages of this accomplishment.

A pilot approaching a strange airdrome under conditions of fog or storm when still at a distance gets in touch with the airdrome radio station to learn the barometric correction for the landing field, air traffic conditions, the direction of the wind, and the location of the two radio stations outside the field. This "conversation" is carried on over the regular radio sets installed in the airplane. His radio compass leads him to the more remote of the radio stations by indications on a dial situated on the instrument board of his airplane. When he comes immediately above the radio station the dial indicates his position. Through various signals from the portable stations and the boundary markers he is able to orient himself continually. Gradually as he approached the field he has been cutting altitude. He has crossed the remote radio station at approximately 800 feet. At the nearer station his altitude has been reduced to approximately 400 feet. As he crosses the field boundary he cuts his altitude further, throttling his motor to 1,000 r.p.m. and approaching the ground at a decreasing angle of flight. With the aid of the instruments in the cockpit, a landing is easily made into the wind. At all times he is thoroughly aware of the attitude of his plane with respect to the ground. A proper gliding angle is easily maintained and the type of landing is equal to a large percentage of those made in the normal manner with all of the pilot's faculties functioning.

Hundreds of tests have been flown in working out and establishing this new system. Only more recently, however, has the hooded cockpit been used. An observer has been carried in the rear cockpit in all tests with the hooded cockpit until May 9th. This observer was not a pilot but was carried as a safety measure to prevent possible collision with other flying planes. Collision preventive equipment is already planned and will form part of the completed blind navigation system.

The research and ingenuity of several engineers of the Materiel Division, as well as many hours of flying tests, have gone into this new development, but so simple and reliable in operation, so inexpensive in material has it proved that it promises to solve in a thoroughly practical way one of the greatest handicaps aviation has been called upon to face.

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HIGH LIGHTS ON FOG NAVIGATION DEVELOPMENTS BY THE MATERIEL DIVISION

The need for navigation instruments to enable Army pilots to fly in any kind of weather was realized by the Materiel Division as early as 1918. The

activities were intensified in 1918, when Lieut. Hegenberger took charge of the newly organized Instrument Unit at McCook Field. The first instrument suggested for the purpose of flying in clouds or banks of fog was the combination of bank indicator with a turn indicator, suggested by Major Schroeder in 1918. Lt. Hegenberger requested the Pioneer Instrument Co. to build such an instrument in accordance with the specifications of the Materiel Division engineers. Our records show that the gyro turn indicator was developed in 1918 by the Science Department at Langley Field.

The earth inductor compass was developed by the Materiel Division and famous flights were made in fog, clouds or above clouds using this instrument as early as 1923. In one test, Lieut. Hegenberger and Mr. Bradley Jones flew in a DH plane from McCook Field to Boston. From Ohio to the Hudson River, for a stretch of 400 miles, the flight was made without sight of earth.

In April, 1924, a non-stop flight was made from McCook Field to Albany, 600 miles, by instruments alone. All the maps were sealed and verified at the terminal station. None of the occupants were familiar with the country beyond Columbus.

In June, 1923, Lieut. Hegenberger and Mr. Bradley Jones made a round trip from McCook Field to San Francisco, Calif., testing satisfactorily the first model of the artificial horizon. During the flight, they encountered very severe storms over the Wasatch Mountains.

The aural radio beacon was fully developed by the Materiel Division and has been in use since 1924. In 1925, the engineers of the Materiel Division equipped the first air mail plane with radio to be used in connection with the beacon station at the Air Mail Experimental Station at Monmouth, Illinois.

In 1927, research work was initiated for the development of other radio aids for fog navigation and fog landings, as: electric altimeters to show true altitude above the landing surface, electric cables to mark the boundary of the landing field, etc.

In 1928, the Guggenheim Foundation organized at Mitchel Field, N.Y., a series of experiments in order to test not only the possibilities of blind flying but also of blind landing. The Materiel Division loaned to the Foundation Lieut. Doolittle and a wealth of advice as to the kind of instruments and radio aids to be used in these tests. The type of airplane and the use of oleo landing gear were suggested also.

In September, 1929, Lieut. Doolittle gave a demonstration of blind landing, proving that the problem could be solved if a powerful agency coordinated the efforts and the progress made in development of instruments and radio aids.

In February, 1930, the Foundation ceased and all the equipment was transferred to the Materiel Division which intensified the development. Research was initiated in order to perfect new types of boundary markers, radio compasses and radio beacons. The effort culminated in the splendid demonstration given by Captain A.F. Hegenberger on May 9, 1932, when he took off in a service airplane with the cockpit covered and landed at Patterson Field without a safety pilot. This demonstration is a step further in the development of the art and shows that with better instruments and radio aids the efficiency of the aircraft can be greatly improved.

Two of the important facts discovered by the Materiel Division in the development and test of fog navigation equipment are:

a. Fog navigation with good instruments and radio aids requires very little training.

b. Fog landing in the present stage of development requires at least 10 hours' practice over the system utilized.

The next step in the Materiel Division's development program is to simplify the system so that very little training will be necessary for the average pilot to familiarize himself with the manipulation of controls during the blind landing.

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Second Lieut. Minton W. Kaye and Staff Sgt. John D. Meeks, both of the 23rd Photo Section, March Field, Calif., recently completed a week of hard work in eastern California. Cooperating with the Forestry Service, a mosaic map of 1,000 square miles, covering the area between Needles and Blythe, was made, the purpose being to record the present topographical conditions of that area in order that changes may be noted after the completion of the Hoover Dam Project. It was necessary for them to fly at an altitude of 19,000 feet during the mission. Three months of laboratory work will be necessary to complete the map.

ALBROOK FIELD OCCUPIED BY TROOPS

ALBROOK Field, Panama Canal Zone, with the actual occupation by troops, has emerged from its construction status and taken a place on the list of active Army Air Corps posts. It was formally and officially taken over by the Air Corps on May 13th. The 44th Observation Squadron, commanded by Major E.A. Lohman, having been transferred from France Field, was moved to the new station by planes and the U.S.A.T. CHATEAU THIERRY. Albrook Field, formerly known as the Balboa Fill Landing Field, was named in honor of 1st Lieut. Frank P. Albrook, Air Corps, who died September 17, 1924, from injuries received in an airplane accident on August 12, 1924, at Chanute Field, Ill. He served from April, 1920, to April, 1924, with the 63rd Service Squadron at France Field, and was then transferred to Wilbur Wright Field, where he was stationed at the time of his fatal accident.

The Albrook Reservation consists of approximately 1,000 acres, of which 275 acres are devoted to the actual flying field. The flying field is 7,000 feet in length and 4,000 feet in width and is reputed to be one of the finest and largest under military jurisdiction.

The initial construction work began in April, 1929, when the hydraulic fill was started. This phase of the work covered a period of a year, ending in April, 1930. The dry fill was started at this time and is still being carried on in some sections of the Reservation. The entire construction project has been carried out under the supervision of 1st Lieut. Barney L. Meeden, QMC, who has devoted his complete attention to the assignment since his arrival in the Canal Zone in August, 1930. There are five hangars still under construction. Three of the hangars are on the line while the other two will be used for the shops, Air Corps Supply and assembly and repair.

The barracks and quarters, under construction since December, 1930, were completed in April, 1932, at a cost of approximately $2,000,000. The quarters area consists of 4 permanent field officers' quarters, 32 company officers' quarters, a bachelor officers' quarters, which has 16 two-room apartments, and 31 sets of two-family noncommissioned officers' quarters. The barracks area contains four permanent barracks. Two of the barracks have a capacity of 200 men while the other two have a capacity of 110 men. The next construction bids, which will be let in the near future, will provide for a Dispensary, Fire and Guard House, Motor Transport Garage, Headquarters and Operations Building, Noncommissioned Officers' Club, Officers' Mess, Gymnasium, Swimming Pool, and a building which will house the Post Exchange, Theatre and Enlisted Men's Club.

All of the buildings on the reservation are of cement construction with tile roofs. Within the barracks and quarters area are 1½ miles of paved streets, 3 miles of sidewalks, 2 miles of sewer lines, 1¼ miles of water lines which carry water from two 1,500,000-gallon reservoirs, 1½ miles of electric duct lines, 1¼ miles of telephone duct lines, three-quarters of a mile of storm drains, 2¼ miles of service roads, 15 fire plugs, and 42 street lights. The gasoline storage situation is taken care of by a battery of underground tanks that have a total capacity of 100,000 gallons.

Post and Squadron duties have been allocated to the commissioned personnel as follows:

Major E.A. Lohman, Commanding.

Captain J.K. McDuffie, Executive, Summary Court, Surveying, Finance Officer, Post Auditor, Squadron Adjutant.

1st Lieut. C.E. O'Connor, Post Exchange, Transportation Officer.

1st Lieut. J.G. Pratt, Operations, Intelligence, Information Officer.

1st Lieut. E.W. Barnes, Engineering, A.C. Supply, Ordnance, Parachute Officer

2nd Lieut. A.J. Lehman, Aircraft Inspector, Fire Marshall, Police and Prison Officer.

2nd Lieut. T.L. Bryan, Post Adjutant, Personnel Adjutant, Press Relations, Recruiting Officer.

2nd Lieut. E.M. Day, Mess Officer, O.C. Bachelors' Mess.

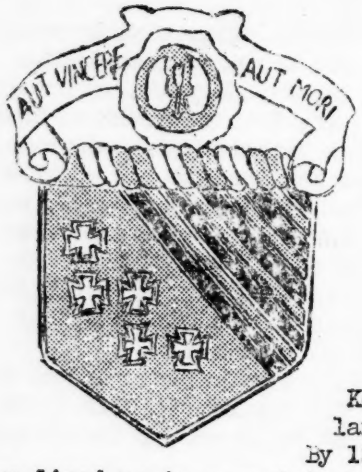
2nd Lieut. N.E. Ausman, Engineering Supply, Chemical Warfare, Library Officer.

2nd Lieut. S.V. Stephenson, Quartermaster, Post Utilities Officer.

2nd Lieut. E.H. Mitchell, Supply, Communications, A. & R., Air Corps News Officer.

2nd Lieut. J.H. Rothrock, Post Signal Officer, Assistant Quartermaster.

AERIAL WAR AT BATTLE CREEK



On Wednesday, May 18th, the 1st Pursuit Group flew to Battle Creek, Mich., and took part in a combined aviation tactical problem with the 15th Observation Squadron of Scott Field. The problem had been arranged to coincide with the command post exercises taking place at Camp Custer. The Group, under the command of Captain Ross G. Hoyt, took off from Selfridge Field at 11:00 a.m. Four Squadrons, including the 17th, 27th, 36th and 94th formed the elements of the big formation of over 70 planes. After taking off, the Group went into route column, and headed straight for Kellogg Field at Battle Creek, where they were to land before flying the problem.

By 12:30 all planes had gotten into Kellogg Field and were lined up in symmetrical array. The squadrons landed by flights, as the field was too small to get a whole squadron down at the same time, especially as the wind was in the short direction of the field. It was close work for the last couple of flights, as the ships already on the ground took up so much room. The last two flights sneaked in over the trees and dropped down very short.

While the junior officers rested, answered the questions of the large crowd of civilians, and protected their airplanes from being carried away as souvenirs, the squadron commanders gathered together to receive the orders from Captain Hoyt, who had worked out the problem in cooperation with the staff officers at Camp Custer. Orders having been given to the commanders and passed on to the flight leaders and element leaders, all squadrons started their ships preparatory to taking off. First went the 15th Observation, and in rapid succession the Pursuit squadrons followed. The first part of the problem was a rendezvous between Pursuit and Observation. The rendezvous was effected east of Battle Creek, and then the combined forces moved west over Custer, the Pursuit flying high over the Observation as protection.

Having completed this part of the problem, the formation broke up and the Pursuit formed a new formation for carrying out the second phase. Flying lower and in more open array, they passed directly east of Camp Custer, theoretically dropping hundreds of fragmentation bombs on a concentration of troops beneath. As the pilots flew overhead, they could see the staff officers on a hill in Camp Custer watching their maneuvering. The second phase of the problem completed, the squadrons reformed and headed straight for Selfridge Field. No more maneuvering could be done. The planes were running short of gasoline and had to return promptly to their base.

All who participated in or witnessed the problem considered the flight a great success. No untoward incident marred the occasion, and the weather was nearly perfect from the point of view of both airmen and groundlings, though the weather man could be criticized for allowing too many air pockets in the upper atmosphere.

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MATHER FIELD AIRMEN COMPLETE GUNNERY TRAINING

The 1932 Gunnery Season for Mather Field, Calif., is now over. Starting with ground gunnery and bombing in March, it lasted until aerial gunnery was completed during the month of May at Honey Lake. The aerial gunnery camp was established by the 55th Pursuit Squadron, which organization, after using it two weeks, turned it over to the 77th Pursuit Squadron. This squadron had the job of breaking camp and bringing the supplies back at the completion of their two weeks. "It is with pride," says the News Letter Correspondent, "that we point to the average score of 1011.9 points for the forty officers who fired the course. This average we believe to be one that is enviable and one to be a record for an entire Group."

"Many comments have been made about the weather at the camp, but we all agree that if reveille had been at a later hour the cold would have not been so intense. Breaking the ice to secure water to shave with was not relished by most of the officers, consequently most of them returned looking like walking advertisements of a certain brand of cough drops."

V-6289, A.C.

THE AIRPLANE WHICH WENT TO COLLEGE

EVEN airplanes are seeking higher education - and higher education is seeking airplanes! A beautiful orange and blue Douglas airplane, the choice possession of the Army Air Corps, has just completed its five months' course on the Heights of N.Y.U. It left the campus with an excellent scholastic record and a host of friends; even prominent members of the faculty freely predicted that it would undoubtedly attain a high position in its chosen sphere of activity.

And now the Heights campus has an "airport" - not the last word in efficiency, to be sure, but an airport just the same. One day, some months ago, our Air Corps officer, Lieut. Samuel Mills, who is in charge of the Air Corps Unit here, decided that an airplane - an up-to-date airplane - should have a place of honor on our campus. Jumping into an airplane, he hopped down to Washington and visited with his general - a visit not without results. Upon his return he secured from Dean Bliss of the College of Engineering, an aviation enthusiast, the use of the West basement in the Nichols Chemistry Building for a "hangar." An interested welcome by the Chemical Engineering Department encouraged matters. Then the Lieutenant mobilized his twelve trusty Air Corps officers of the Senior class, consisting of Dennis Crooke, Joseph Gillin, Hugh Hammond, Howard Hick, John Hunt, James Keefe, Leo Kelly, Chester Kuczynski, Jack Lepre, Gunnar Nelson, John Post and Henry Updegrove.

They all were enthusiastic, and the project was soon under way. A plane which had been used for about 500 hours of flying from Bolling Field, Washington, D.C.,
was considered qualified and was selected to be sent to college. Now the campus itself seemed too small, so Van Courtlandt Park, two miles distant, was selected as the N.Y.U. field part of the Airport. With Col. S.A. Campbell's blessing and the permission of Park Commissioner Dolan, the Lieutenant flew the Douglas, now known as "Thirty One Dash Sixteen," from Washington and "set her down" among the goal posts of Van Courtlandt, fortunately none the worse for its trip.

The Air Corps Unit now took charge, and in a circle of many interested Bronx neighbors, measured up the airplane and carefully disassembled its structure. A short towing operation deposited it on the back campus. Here, the 450 h.p. Pratt & Whitney Wasp Engine and the landing chassis were removed by usual field or emergency methods. To actually enter the hangar presented a problem comparable to that of a rich man going to Heaven. However, eventually the 2000-pound fuselage was barely moved through an east window, raised above the chemical laboratory tables, turned, and moved the length of the building into the "hangar." A primary training airplane was already there and also a relic of War days: an SE-5 airplane, the last, as the students say, "with whiskers on it." In addition to many hours of rigging and assembly and disassembly by the Air Corps men, one evening engineering class of thirty-two students, and the A.E.-66 class of forty-eight students of the Guggenheim school have received instruction from Lieutenant Mills on this up-to-date machine. The hangar equipment was prepared by the Air Corps men, but made available to others as a little contribution to the general cause.

On Monday, March 14, one section of the Air Corps Seniors, during a snow squall, installed the engine. The following day, the season's coldest and the coldest March 15 on record, the class mobilized, re-established a base in Van Courtlandt Park, and assembled, rigged, and inspected "Thirty One Dash Sixteen." A place for everything and everything in its place seemed to be the Lieutenant's idea. How well the students carried this out may be imagined from a paragraph from the report of his delivery of the airplane to Middletown, Pa.: " * * after assembly and inspection by my Air Corps Unit men, I felt satisfied with the machine. The engine was started with little difficulty and the plane 'taken off' without incident. It climbed out of the Park beautifully and made the flight to Mitchel Field for gasoline and oil and thence to Middletown, Pa., where it was delivered to the Army. The engine, due to valve adjustment and other work, was much smoother and showed thirty additional r.p.m's. Its flying qualities and balance were most satisfactory."

It was the first time that an up-to-date airplane had been available to the aeronautical students on the Heights and possibly one of the first instances where any University students have used their instructional equipment in actual flight.

Now the moral of this little story is this - if you provide up-to-date

equipment and simulate, in so far as possible, real conditions under which such equipment will be used, the average college man will be interested, serious, conscientious and painstaking. The instructor does not even need to be a good fellow. He simply needs to give his men lessons straight from the shoulder which will clinch their theoretical pursuits and aid them in the future to enjoy work and earn an honest living.

The liaison between theory and practice, the interest manifested by the students, and the real fun Lieutenant Mills appeared to have during the last five months, certainly justified the War Department in sending "Thirty One Dash Sixteen" to college.

-from NEW YORK UNIVERSITY "ALUMNUS."

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FIRST PURSUIT GROUP FLIES TO INDIANAPOLIS, IND.

The 1st Pursuit Group flew an avigation problem on May 30th, taking off early in the morning and, flying a tactical formation, heading for Indianapolis. The Group training program includes long distance flights of this organization in order to give the squadrons practice in map reading and landing by squadrons in strange fields.

Schoen Field, a United States Air Reserve field, was the airport destination at Indianapolis, and all planes arrived there safely except one, which had minor motor trouble and landed for repairs. On landing, Major Brower, Commanding Officer of the Group, was greeted by a representative of Colonel Rickenbacker, President of the Indianapolis Speedway Corporation.

Pilots and mechanics returned early the next day to Selfridge Field, after spending the night in Indianapolis. From a military training viewpoint, Group Operations considered the mission well accomplished.

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PURSUITERS PARTICIPATE IN COMMAND POST EXERCISES

Several officers and enlisted men of Selfridge Field participated in the Command Post Exercises conducted at Camp Custer, Mich., from May 14th to 28th, by Major General Frank Parker, Commanding General of the Sixth Corps Area. When it was definitely determined that Air Corps maneuvers and combined training for Air Corps units had been cancelled for the remainder of the fiscal year, General Parker decided to include an Air Force in the exercises and asked Major Brett, Commanding Officer of Selfridge Field, to organize the headquarters and staff of the 1st Air Division.

In this exercise it was assumed, the Blue and Reds being at war, that the Blue Sixth Army was a member of a group of Blue Armies which were defending a general line extending from the Great Lakes south, and the Sixth Army had for its sector the area near Camp Custer. The 1st Air Division had been attached by GHQ to the Sixth Blue Army.

The first week of the exercise was spent in attending lectures by General Parker and his staff and in organizing the headquarters and staff of the Air Division. In this organization, Major George H. Brett commanded the 1st Air Division; Major Gerald E. Brower acted as Chief of Staff; Lt. Paul W. Wolf acted as G-3; Lt. Thayer S. Olds as G-2; Capt. Ross G. Hoyt served with headquarters at first and was then placed on duty in the Directors' headquarters as an Assistant Air Director in charge of the problem; Lt. James O. Guthrie, Air Res., served as air officer for the 1st Cavalry Division.

During the second week of the exercise, actual hostilities were assumed , and lasted until Friday at noon. During the course of operations, much valuable experience was gained by the officers participating in the writing and transmission of orders, the handling of messages, the operations of the staff sections and the compilation and rendition of reports. The actual results of the assumed conflict will not be known for some time but the Air Corps officers on duty during the exercise took advantage of the opportunity afforded them by Gen. Parker in gaining invaluable information and experience in the duties of command and staff.

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The News Letter expresses its appreciation to Private H.T. Collins, Hqrs. 12th Observation Group, Brooks Field, Texas, for the very attractive cover design which he recently submitted and which features this issue. News Letter readers who are handy with pen or pencil are cordially invited to submit cover designs for future issues.

GRADUATIONS FROM THE ADVANCED FLYING SCHOOL

The Air Corps Advanced Flying School, Kelly Field, Texas, will graduate a class of 94 students on June 29th. The class consists of 91 flying cadets and 3 student officers, namely, Captain Eberhard F. Baier, German Army, 2nd Lieuts. William T. Hefley, Jr., Corps of Engineers, and Russell A. Wilson, Signal Corps, U.S. Army. Exercises will begin at 8:00 a.m., with an aerial review, all graduates participating. The graduating exercises will be held in the Post Theatre at 10:00 a.m., with Major-General Benjamin D. Foulois, Chief of the Air Corps, delivering the commencement address. Diplomas will be presented by Brigadier-General Charles H. Danforth, Commanding the Air Corps Training Center.

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FIELD EXERCISES FOR BOMBARDMENT SQUADRON IN THE PHILIPPINES

The 28th Bombardment Squadron, with 9 planes and 45 officers and men, recently operated from a pasture near Iba, Zambales, as a base for a period of four days. Iba is approximately 100 miles from Nichols Field. All camping equipment, rations, fuel and oil were transported by air. Not an element of ground transportation between Nichols Field and Iba was used during the entire operation. One Carabao cart was hired from a native for transportation on the improvised airdrome.

During the operation in the field, 53 hours and 30 minutes of flying time was used. The operation conclusively proved that a Bombardment squadron can maintain itself in the field with 100% satisfaction.

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GERMAN GIRL FLYER ENTERTAINED AT FRANCE FIELD

When Amelia Earhart Putnam changed the route of her projected flight to Europe to the northern one instead of via Panama and South America, her first plan, France Field, Panama Canal Zone, lost the patronage of the only celebrity in sight. However, like a ray of sunshine in the slough of despond, in pops a little German girl unexpectedly on a steamer from China. She was Fraulein Elly Beinhorn, and she announced her intention of making a flight through South America to Rio, in continuation of her adventures throughout the world. Her plane was the Klemm light low-wing monoplane, popular in Germany. It is powered with a 110 h.p. Argos engine, and cruises at about 90 miles per hour, with a radius of 750 miles.

Through the courtesy of the Commanding Officer, Major Brereton, who with Mrs. Brereton entertained Fraulein Beinhorn as their house guest, the plane was erected at France Field. The Fraulein was most attractive and had several of the bachelors really extending themselves to see that the time should not hang heavy on her hands. After the plane was tested to her satisfaction, she bade "auf weidersehn" to France Field and departed for Paitilla Airport in Panama City, per point of departure and customs inspection. On June 3rd she left Panama with all good wishes and landed at Cali the same day. Dispatches from South America announced her arrival at Lima, Peru, on June 7th.

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Loud is the praise which is cheerfully being given the 1st Observation Squadron, Mitchel Field, N.Y., for the excellent record made during the annual bombing and gunnery exercises at Aberdeen, Md. Seventeen officers received "Expert" ratings, and the odd man made "Sharpshooter." Of the attached officer personnel, four out of five of them were "Experts" and the fifth made "Sharpshooter" by a goodly margin.

Alluding no doubt to the item in the last issue of the News Letter to the effect that the 94th Pursuit Squadron, Selfridge Field, Mich., had laid out its insignia of the Indian head in colored stones on a sloping bank of ground in rear of the hangars, the Correspondent of the 17th Pursuit Squadron at that field says: "The 17th, too, can brag of a squadron marker in the small earthen area in front of the hangar, but being greater lovers of natural beauty have created our marker from small flowering plants. We not only take issue with the 94th as to the priority but invite comparison on any basis."

FREE WHEELING PROPELLERS

At intervals during the past fifteen years interest has been shown in free rotational propellers, that is to say, propellers that may be driven by the engine but which may not drive the engine. The major reason for this recurrent interest has been the searching for ways and means of reducing the drag of a dead propulsive unit in order that the gliding range of single-engined craft and the flying range of multi-engined craft with such a unit might be increased.

The second reason for the interest is based on a rather poorly grounded knowledge of dynamics, a contention that if a free rotational propeller were being used and some failure occurred in the engine, such as to a rod or a piston, less subsequent damage would occur to the engine since it could not be driven by a "wind-milling" propeller.

The last mentioned advantage claimed for the free rotational propeller is one of degree only. While it may be freely admitted that a conventional engine-propeller unit will turn over more times before stopping in the event of the switches being cut than would an engine equipped with a free rotational propeller under identical circumstances, it must be remembered that enough energy is stored in the rotating parts of the engine alone to do a thorough job of self-destruction. When one adds the amount of energy contributed by the uninjured cylinders which in most cases will continue to fire, it is obvious that sufficient damage may be done to the engine even neglecting that which would be contributed by the propeller.

The matter of reduction of drag by the use of a free rotational propeller has a slightly better case. There is little doubt that a propeller that is free to turn has less drag than one that is fixed to the crankshaft of a dead engine. The actual amount of difference, however, has not been definitely established and, in the opinion of a large number of engineers, it is doubtful if the gain would more than offset the additional weight of the free rotational clutch. In addition, the adoption of such a device would eliminate the beneficial fly-wheel effect of the conventional propeller. Any internal combustion engine can be made to run more smoothly and to idle at lower speeds with a flywheel than without one. As a matter of record, engineers at Wright Field investigating the problem of free rotational propellers found that the satisfactory idling speeds of engines without propellers was from 180 to 270 per cent higher than the same engines with propellers.

Considering only the facts given above, it is indicated that the free rotational propeller has little merit after the disadvantages have been charged off. To complete the argument it may be stated that the rather doubtful drag characteristics of the free rotational propeller are much inferior to the drag characteristics of a feathered controllable pitch propeller and that the latter with its obviously greater advantages is progressing to an advanced stage of refinement in the hands of Wright Field engineers.

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REST CAMP FOR MARCH FIELD PERSONNEL

Work at the site of the new Rest Camp at Big Bear Lake in the San Bernardino Mountains has progressed slowly due to the inability of army truck to maneuver the snow-covered roads leading to the camp. However, two trucks trains of 14 trucks each recently made trips to the camp, bearing lumber and other material for the construction of the one permanent building at the camp, the mess hall. The command will sleep in tents with wooden flooring. The construction work at the camp is under the direction of Captain Claude Duncan, Commanding Officer of the 64th Service Squadron, March Field, Calif.

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Maintenance cross-country flights were just completed by the Attack, Observation, Bombardment and Pursuit Sections of the Advanced Flying School. On June 9th, Lt.-Col. Clagett, the Commandant, accompanied the Pursuit Section on their flight from Kelly Field to Dallas, Muskogee, Fort Sill, Midland, Lubbock, El Paso, and return to Kelly Field.

Recently an enlisted man was being examined at the March Field Hospital. During the examination, the Medical officer asked: "Do you see spots (Spatz) before your eyes?" Greatly agitated, the enlisted man replied: "Great heavens, can't I get away from his face anywhere?"

WAR DEPARTMENT ORDERS AFFECTING AIR CORPS OFFICERS

CHANGES OF STATION: To the Philippines: 1st Lieuts. Albert F. Glenn and Joseph C.A. Denniston, from Randolph Field; Wm. E. Baker, Kelly Field; Levi L. Beery, Wright Field; 2nd Lt. Lawrence H. Douthit from Chanute Field.

To Chanute Field, Ill.: 2nd Lt. Dyke F. Meyer from U.S.M.A., West Point, N.Y.; 1st Lts. James S. Stowell, Robert W. Harper from Philippines.

To Crissy Field, Calif.: 1st Lt. James T. Cumberpatch from University of California, Berkeley, Calif.

To Kelly Field, Texas: 1st Lt. Walter C. White from Philippines; 1st Lt. John S. Griffith from Selfridge Field.

To Randolph Field, Texas: 1st Lt. John R. Hawkins, from Philippines; 1st Lt. Raymond E. Culbertson, 2nd Lts. Carl R. Feldmann, Norman B. Olsen, Louis A. Vaupre from Selfridge Field; 1st Lt. George A. Whatley, 2nd Lt. Marshall S. Roth from Mather Field; 2nd Lts. Robert D. Dwyer, George F. Kehoe from Mitchel Field; 2nd Lts. Talma W. Imlay, Truman H. Landon, Robert K. Taylor from Fort Crockett; 2nd Lt. Thomas R. Lynch from Langley Field; 2nd Lts. Elder Patteson, Rockwell Field; Donald B. Smith, March Field, Leland S. Stranathan, Bolling Fld.

To Langley Field, Va.: 1st Lt. Uzal G. Ent from Phulippines; 2nd Lt. Russell A. Wilson, from Advanced Flying School, Kelly Field.

To Brooks Field, Texas: 2nd Lt. William T. Hefley, Jr., from Advanced Flying School, Kelly Field.

To Harrisburg, Pa.: Capt. Bernard J. Tooher, March Field, as Technical Supervisor in Middletown Air Depot Supply Control Area.

To Fort Riley, Kansas: 1st Lt. N.R. Laughinghouse, Chanute Field, for duty with Flight D, 16th Observation Squadron.

To Fort Sill, Okla.: 1st Lt. Paul C. Wilkins, Crissy Field, for duty with Flight E, 16th Observation Squadron.

To Fort Leavenworth, Kansas: 2nd Lt. Eugene H. Rice from Brooks Field, for duty with Air Corps Detachment.

To Governors Island, N.Y.: Col. Theodore A. Baldwin from duty with 77th Div. Organized Reserves, N.Y. City, as Commandant, Atlantic Branch, U.S. Disciplinary Barracks.

To Los Angeles, Calif.: Captain Ira C. Eaker, Bolling Field, to University of Southern California, for duty as student.

To Army Industrial College, Washington D.C.: Captain Arthur W. Brock, from Office Chief of the Air Corps, for duty as student, 1932-1933 course.

To Maxwell Field, Ala.: 1st Lt. Julian B. Haddon, Office Chief of Air Corps, for duty as student.

To Office of the Chief of Air Corps, Washington, D.C.: 1st Lt. Harry A. Halverson from Randolph Field.

To Rockwell Field, Calif.: Captain Horace N. Heisen from Mather Field.

To Wright Field, Ohio: Capt. Vernon L. Burge from Philippines.

To Fort Crockett, Texas: Capt. Joseph H. Davidson from Philippines.

RELIEVED FROM DETAIL TO AIR CORPS: 2nd Lt. William A. Hampton to 14th Coast Artillery, Fort Worden, Wash.; 2nd Lt. Donald R. Patterson to Infantry, 2nd Div., Fort Sam Houston, Texas.

DETAILED TO AIR CORPS: 2nd Lt. Robert G. Turner, Infantry, and to Randolph Field, Texas, for flying training commencing July 1st.

PROMOTIONS: To Lieut.-Colonel: Major Alfred H. Hobley, rank June 1, 1932; To Captain: 1st Lieuts. Edgar E. Glenn, rank April 26th; John W. Monahan, Ernest E. Harmon, Cortlandt S. Johnson, Charles C. Chauncey, Walter E. Richards, Robert E. Selff, rank May 1, 1932; Homer B. Chandler, May 14th; Carl W. Pyle, May 23d; John M. McCulloch, Richard K. LeBrou, Charles W. Sullivan, rank June 1, 1932; To 1st Lieutenant: 2nd Lts. Narcisse L. Cote, April 26th; George H. Sparhawk, John F. Guillett, Dixon M. Allison, Joel G. O'Neal, Alva L. Harvey, May 1; James W. Andrew, Charles A. Ross, George J. Eppright, Frank D. Klein, rank June 1, 1932.

1st Lieut. Frederick M. Hopkins, Jr., has been assigned as Assistant Command- and of the Air Corps Engineering School, Wright Field, Ohio, July 1, 1932, vice Captain Grandison Gardner, relieved.

Captain Guy H. Gale, who graduated from the Air Corps Tactical School, Maxwell Field, Ala., this month, was assigned to duty at Indianapolis, Ind., as Instructor of the 38th Division Aviation, Indiana National Guard.

COLLISION ACCIDENT HAS A HAPPY ENDING

DURING a training flight of the 94th Pursuit Squadron near Selfridge Field, on June 2nd, two planes came together and were so damaged that they became uncontrollable. Once again the parachute proved itself the boon to military aviators that it is, for both pilots extricated themselves from their perilous predicament by "bailing out," and floating to earth suspended under their big silk aerial life savers.

Soon after the happy pilots came to earth (literally and figuratively), your Selfridge Field Correspondent nabbed them and extracted an exclusive statement from each. Here is the statement of 2nd Lieut. H.M. McCoy, Air Corps, who was leading an element and collided with one of his wingmen: "While making a 180° turn in tactical (open) formation, to the left away from the echelon, my left wing man, Lt. Muffat, and I collided when about half way thru the turn. I was leading the third and last element of a nine-ship flight. Immediately upon feeling the crash, I saw my right top wing tip fold back and the ship, a Curtiss P-6E, went into a tight right spin at about 4,000 feet. The lower right wing tore off as I unhooked the safety belt. I remember kicking myself clear of the cockpit and being immediately struck by some part of the ship, probably the tail section. I found myself falling headfirst and got a glimpse of the ship spinning away a short distance to my right. I reached for and pulled the ripcord and was immediately jerked upright as the chute opened just above a thin broken layer of clouds at about 1,500 feet. I pushed the ring up on my wrist and wound the ripcord around it. Just under the clouds, I saw Lt. Muffat land. The chute started oscillating and I stopped it by pulling on the shrouds. A ten-mile surface wind drifted me across an orchard into a plowed field. I landed quite hard and fell forward as three men caught my chute and spilled it. I was a bit stunned but suffered no injuries."

And 2nd Lt. Joseph A. Muffat, Air Reserve, experienced and felt as follows: "On Thursday, June 2, at about 8:15 a.m., my ship, A P-6E and another of the same type flown by Lt. McCoy, collided at an altitude of 4,000 feet, while executing a 180° turn in an open formation. I was flying position No. 3 and Lt. McCoy was leading this element. The turn was to the left. The impact of the collision caused a gash in my chin about three inches long and another in my nose about an inch long. The lower left wing was torn off and the ship went into a steep dive and was turning to the left. My second attempt to leave the ship was successful, and over I went at an altitude of about 1,000 feet. At this time the ship was diving around 250 m.p.h. As I pulled the rip cord I heard an awful crash like thunder and felt a tremendous jerk, and I maintain it's a rather pleasant sensation - considering. I landed in a field with cattle in it and they started toward me. My face was covered with blood and as I looked at those cattle, I thought there might be a bull in the herd. That story about the bull seeing red came to me, and I was over a fence pronto. When I got over to the ship which was in the ground about ten feet, the small crowd shot some questions at me, such as: 'Did you count three?' 'Is the ship insured,' etc. One farmer who didn't know I came down in a parachute looked at me and looked at the wrecked ship and said: 'Well, son, you look pretty good coming out of that wreck; your clothes aint torn or nothin'.'"

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ASSIGNMENT OF GRADUATES OF AIR CORPS TACTICAL SCHOOL

Air Corps officers graduating from the Air Corps Tactical School, Maxwell Field, Montgomery, Ala., in June, 1932, have been assigned to stations for duty, as follows:

To Command and General Staff School, FortLeavenworth, Kansas: Majors H.S. Burwell, Oliver P. Echols, Delos C. Emmons, Captains Elmer E. Adler, Lawrence P. Hickey; To Office Chief of the Air Corps, Washington, D.C.: Captains Theodore J. Koenig, Charles M. Cummings; To Brooks Field, Texas: Captain Robert Kauch, 1st Lieut. Arthur I. Ennis; To Langley Field, Va.: Captains William O. Butler, Walter H. Reid, 1st Lt. Alfred E. Waller; To Maxwell Field, Ala.: Major Frank M. Kennedy,1st Lt. Edwin R. McReynolds; To Tactical School as Instructors: Capts. Harold L. George and Emil C. Kiel; To Randolph Field, Texas: 1st Lieut. Howard A. Craig; To Rockwell Field, Calif.: 1st Lts. Caleb V. Haynes and Morton H. McKinnon; To Mitchel Field, N.Y.: Major Carlyle H. Wash, Captain E.W. Raley; To Selfridge Field, Mich.: Major Adlai H. Gilkeson; To Wright Field, Ohio: Captain Victor H. Strahm; To Crissy Field, Calif.: Major Donald P. Muse; To the Philippines: Major Douglas B. Netherwood; To Office of the Assistant Secretary of War, Washington, D.C.: Major Wm. H. Crom.

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NOTICE TO PILOTS: The following instructions have been issued by the Chief of the Air Corps:

Army aircraft,both heavier-than-air and lighter-than-air, will refrain from flying over the following sites for the period July 15th to Sept. 1, 1932: Olympic Village, Los Angeles, Calif.; Olympic Stadium, Swimming Stadium, Fencing Stadium, Art Museum Stadium, Exposition Park, Los Angeles; Olympic Auditorium, 18th St. and Grand Ave., Los Angeles, Calif.; Riviera Country Club, Santa Monica, Calif.; University of California at Los Angeles, Westwood, Calif.; Rose Bowl, Pasadena, Calif., and Rowing Course, Recreation Park, Long Beach, Calif.

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